

This listing of claims will replace all prior versions,  
and listings, of claims in the application:

Claims 1-6 (canceled)

- 1 Claim 7 (currently amended): A computer-implemented method  
2 comprising:  
3 a) accepting, using a computer system including at  
4 least one computer, search query information including  
5 a word;  
6 b) determining, using the computer system, one or  
7 more words related to the word included in the  
8 accepted search query;  
9 c) generating, automatically using the computer  
10 system, an item request including  
11 i) the word included in the accepted search  
12 query, and  
13 ii) the one or more words determined to be  
14 related to the word included in the accepted  
15 search query;  
16 d) retrieving, using the computer system, items using  
17 the item request;  
18 e) determining, using the computer system, a score  
19 for each of the retrieved items;  
20 f) adjusting, using the computer system, the scores  
21 of any items retrieved on the basis of the one or more  
22 words determined to be related to the word included in  
23 the accepted search query relative to any items  
24 retrieved on the basis of the word included in the  
25 accepted search query to generate adjusted scores; and  
26 g) serving, using the computer system, at least some  
27 of the items to a client device for rendering to a

28 user, wherein the serving is controlled, at least in  
29 part, using the adjusted scores,  
30 wherein the retrieved items are advertisements  
31 and wherein the act of determining a score for each of the  
32 retrieved items uses at least one of ad performance  
33 information and ad price information.

1 Claim 8 (currently amended): The computer-implemented  
2 method of claim 7 wherein the act of adjusting the scores  
3 includes decreasing the scores.

1 Claim 9 (currently amended): The computer-implemented  
2 method of claim 7 wherein the act of adjusting the scores  
3 includes multiplying each of the scores by a multiplier  
4 that is less than one.

1 Claim 10 (currently amended): The computer-implemented  
2 method of claim 9 further comprising:  
3 h) updating, using the computer system, the  
4 multiplier using performance information.

Claim 11 (canceled)

1 Claim 12 (currently amended): The computer-implemented  
2 method of claim 10 wherein the performance information  
3 includes ad selection information.

1 Claim 13 (currently amended): The computer-implemented  
2 method of claim 10 wherein the performance information  
3 includes ad conversion information.

1 Claim 14 (currently amended): The computer-implemented  
2 method of claim 10 wherein the act of updating the  
3 multiplier is performed using a function that causes the  
4 updated multiplier to converge to observed user behavior  
5 relevant to performance divided by predicted user behavior  
6 relevant to performance.

1 Claim 15 (currently amended): The computer-implemented  
2 method of claim 10 wherein the act of updating the  
3 multiplier is performed using the formula:

4 
$$\text{updated\_multiplier} = \frac{N \bullet \text{initial\_multiplier} + \text{observed\_user\_behavior}}{N + \text{naively\_predicted\_user\_behavior}}$$

5 wherein N is a number.

1 Claim 16 (currently amended): The computer-implemented  
2 method of claim 15 wherein the user behavior is selection.

1 Claim 17 (currently amended): The computer-implemented  
2 method of claim 15 wherein the user behavior is conversion.

Claim 18 (canceled)

1 Claim 19 (currently amended): A computer-implemented  
2 method comprising:  
3 a) accepting, using a computer system including at  
4 least one computer, search query information including  
5 a word;  
6 b) determining, using the computer system, one or  
7 more words related to the word included in the  
8 accepted search query;  
9 c) generating, automatically using the computer  
10 system, an item request including

11 i) the word included in the accepted search  
12 query, and  
13 ii) the one or more words determined to be  
14 related to the word included in the accepted  
15 search query;  
16 d) retrieving, using the computer system, items using  
17 the item request;  
18 e) determining, using the computer system, a score  
19 for each of the retrieved items;  
20 f) adjusting, using the computer system, the scores  
21 of any items retrieved solely on the basis of the one  
22 or more words determined to be related to the word  
23 included in the accepted search query relative to any  
24 items retrieved on the basis of the word included in  
25 the accepted search query to generate adjusted scores;  
26 and  
27 g) serving, using the computer system, at least some  
28 of the items to a client device for rendering to a  
29 user, wherein the serving is controlled, at least in  
30 part, using the adjusted scores,  
31 wherein the retrieved items are advertisements  
32 and wherein the act of determining a score for each of the  
33 retrieved items uses at least one of ad performance  
34 information and ad price information.

1 Claim 20 (currently amended): The computer-implemented  
2 method of claim 19 wherein the act of adjusting the scores  
3 includes decreasing the scores.

1 Claim 21 (currently amended): The computer-implemented  
2 method of claim 19 wherein the act of adjusting the scores

3 includes multiplying each of the scores by a multiplier  
4 that is less than one.

1 Claim 22 (currently amended): The computer-implemented  
2 method of claim 21 further comprising:  
3 h) updating, using the computer system, the  
4 multiplier using performance information.

Claim 23 (canceled)

1 Claim 24 (currently amended): The computer-implemented  
2 method of claim 22 wherein the performance information  
3 includes ad selection information.

1 Claim 25 (currently amended): The computer-implemented  
2 method of claim 22—wherein the performance information  
3 includes ad conversion information.

1 Claim 26 (currently amended): The computer-implemented  
2 method of claim 22 wherein the act of updating the  
3 multiplier is performed using a function that causes the  
4 updated multiplier to converge to observed user behavior  
5 relevant to performance divided by predicted user behavior  
6 relevant to performance.

1 Claim 27 (currently amended): The computer-implemented  
2 method of claim 22 wherein the act of updating the  
3 multiplier is performed using the formula:

4 
$$\text{updated\_multiplier} = \frac{N \bullet \text{initial\_multiplier} + \text{observed\_user\_behavior}}{N + \text{predicted\_user\_behavior}}$$

5 wherein N is a number.

1 Claim 28 (currently amended): The computer-implemented  
2 method of claim 27 wherein the user behavior is selection.

1 Claim 29 (currently amended): The computer-implemented  
2 method of claim 27 wherein the user behavior is conversion.

Claims 30-31 (canceled)

1 Claim 32 (currently amended): A computer-implemented  
2 method comprising:  
3 a) accepting, using a computer system having at least  
4 one computer, search query information including a  
5 word;  
6 b) determining, using the computer system, one or  
7 more words related to the word included in the  
8 accepted search query;  
9 c) generating, automatically using the computer  
10 system, an item request including  
11 i) the word included in the accepted search  
12 query, and  
13 ii) the one or more words determined to be  
14 related to the word included in the accepted  
15 search query;  
16 d) retrieving, using the computer system, items using  
17 the item request;  
18 e) determining, using the computer system, a score  
19 for each of the retrieved items, wherein a score  
20 component is adjusted for any items retrieved on the  
21 basis of the one or more words determined to be  
22 related to the word included in the accepted search  
23 query relative to any items retrieved on the basis of  
24 the word included in the accepted search query; and

25 f) transmitting, using the computer system, at least  
26 some of the retrieved items towards a client device  
27 for rendering to a user,  
28 wherein the retrieved items are advertisements  
29 and wherein the score component is at least one of ad  
30 performance information and ad price information.

1 Claim 33 (currently amended): The computer-implemented  
2 method of claim 32 wherein the act of adjusting the score  
3 component includes decreasing the score component.

1 Claim 34 (currently amended): The computer-implemented  
2 method of claim 32 wherein the act of adjusting the score  
3 component includes multiplying the score component by a  
4 multiplier that is less than one.

1 Claim 35 (currently amended): The computer-implemented  
2 method of claim 34 further comprising:  
3 g) updating, using the computer system, the  
4 multiplier using performance information.

Claim 36 (canceled)

1 Claim 37 (currently amended): The computer-implemented  
2 method of claim 35 wherein the performance information  
3 includes ad selection information.

1 Claim 38 (currently amended): The computer-implemented  
2 method of claim 35—wherein the performance information  
3 includes ad conversion information.

1 Claim 39 (currently amended): The computer-implemented  
2 method of claim 35 wherein the act of updating the  
3 multiplier is performed using a function that causes the  
4 updated multiplier to converge to observed user behavior  
5 relevant to performance divided by predicted user behavior  
6 relevant to performance.

1 Claim 40 (currently amended): The computer-implemented  
2 method of claim 35 wherein the act of updating the  
3 multiplier is performed using the formula:

4 
$$\text{updated\_multiplier} = \frac{N \bullet \text{initial multiplier} + \text{observed\_user\_behavior}}{N + \text{naively\_predicted\_user\_behavior}}$$

5 wherein N is a number.

1 Claim 41 (currently amended): The computer-implemented  
2 method of claim 40 wherein the user behavior is selection.

1 Claim 42 (currently amended): The computer-implemented  
2 method of claim 40 wherein the user behavior is conversion.

Claims 43-52 (canceled)

1 Claim 53 (currently amended): Apparatus comprising:  
2 a) an input for accepting search query information  
3 including a word;  
4 b) at least one processor; and  
5 c) at least one storage device storing machine  
6 executable instructions which, when executed by the at  
7 least one processor, perform a method including,  
8 1) [[means for]] determining one or more words  
9 related to the word included in the accepted  
10 search query, [[+]]



11           2) ~~[[e]—means for]~~ generating, automatically,  
12           an item request including  
13           i) the word included in the accepted search  
14           query, and  
15           ii) the one or more words determined to be  
16           related to the word included in the accepted  
17           search query, ~~[[+]]~~  
18           3) ~~[[d]—means for]~~ retrieving items using the  
19           item request, ~~[[+]]~~  
20           4) ~~[[e]—means for]~~ determining a score for each  
21           of the retrieved items, ~~[[+]]~~  
22           5) ~~[[f]—means for]~~ adjusting the scores of any  
23           items retrieved on the basis of the one or more  
24           words determined to be related to the word  
25           included in the accepted search query relative to  
26           any items retrieved on the basis of the word  
27           included in the accepted search query to generate  
28           adjusted scores, ~~[[+]]~~ and  
29           6) ~~[[g]—means for]~~ serving at least some of the  
30           items to a client device for rendering to a user,  
31           wherein the serving is controlled, at least in  
32           part, using the adjusted scores,  
33           wherein the retrieved items are  
34           advertisements and wherein the means for determining a  
35           score for each of the retrieved items use at least one  
36           of ad performance information and ad price  
37           information.

1   Claim 54 (currently amended): The apparatus of claim 53  
2   wherein the act of adjusting uses ~~[[means for adjusting~~  
3   ~~use]]~~ a multiplier, the method ~~[[apparatus]]~~ further  
4   including ~~[[comprising+]]~~

5        7) ~~[[h) means for]]~~ updating the multiplier using  
6        performance information.

Claim 55 (canceled)

1    Claim 56 (previously presented): The apparatus of claim 54  
2    wherein the performance information includes ad selection  
3    information.

1    Claim 57 (previously presented): The apparatus of claim 54  
2    wherein the performance information includes ad conversion  
3    information.

1    Claim 58 (currently amended): The apparatus of claim 54  
2    wherein the act of updating the multiplier uses ~~[[means for~~  
3    ~~updating the multiplier use]]~~ a function that causes the  
4    updated multiplier to converge to observed user behavior  
5    relevant to performance divided by predicted user behavior  
6    relevant to performance.

1    Claim 59 (currently amended): The apparatus of claim 54  
2    wherein the act of updating the multiplier uses ~~[[means for~~  
3    ~~updating the multiplier use]]~~ the formula:

4        
$$\text{updated\_multiplier} = \frac{N \bullet \text{initial\_multiplier} + \text{observed\_user\_behavior}}{N + \text{naively\_predicted\_user\_behavior}}$$

5    wherein N is a number.

1    Claim 60 (original): The apparatus of claim 59 wherein the  
2    user behavior is selection.

1    Claim 61 (original): The apparatus of claim 59 wherein the  
2    user behavior is conversion.

Claim 62 (canceled)

1 Claim 63 (currently amended): Apparatus comprising:  
2 a) an input for accepting search query information  
3 including a word;  
4 b) at least one processor; and  
5 c) at least one storage device storing machine  
6 executable instructions which, when executed by the at  
7 least one processor, perform a method including,  
8 1) ~~[[means for]]~~ determining one or more words  
9 related to the word included in the accepted  
10 search query, ~~[[+]]~~  
11 2) ~~[[e]—means for]]~~ generating, automatically,  
12 an item request including  
13 i) the word included in the accepted search  
14 query, and  
15 ii) the one or more words determined to be  
16 related to the word included in the accepted  
17 search query, ~~[[+]]~~  
18 3) ~~[[d]—means for]]~~ retrieving items using the  
19 item request, ~~[[+]]~~  
20 4) ~~[[e]—means for]]~~ determining a score for each  
21 of the retrieved items, ~~[[+]]~~  
22 5) ~~[[f]—means for]]~~ adjusting the scores of any  
23 items retrieved solely on the basis of the one or  
24 more words determined to be related to the word  
25 included in the accepted search query relative to  
26 any items retrieved on the basis of the word  
27 included in the accepted search query to generate  
28 adjusted scores, ~~[[+]]~~ and

29           6) ~~[[g) means for]]~~ serving at least some of the  
30           items to a client device for rendering to a user,  
31           wherein the serving is controlled, at least in  
32           part, using the adjusted scores,  
33           wherein the retrieved items are advertisements  
34           and wherein the means for determining a score for each of  
35           the retrieved items uses at least one of ad performance  
36           information and ad price information.

1   Claim 64 (currently amended): The apparatus of claim 63  
2   wherein the act of ~~[[means for]]~~ adjusting uses a  
3   multiplier, the method ~~[[apparatus]]~~ further including  
4   ~~[[comprising+]]~~  
5       7) ~~[[g) means for]]~~ updating the multiplier using  
6       performance information.

Claim 65 (canceled)

1   Claim 66 (previously presented): The apparatus of claim 64  
2   wherein the performance information includes ad selection  
3   information.

1   Claim 67 (previously presented): The apparatus of claim 64  
2   wherein the performance information includes ad conversion  
3   information.

1   Claim 68 (currently amended): The apparatus of claim 64  
2   wherein the act of updating the multiplier uses ~~[[means for~~  
3   ~~updating the multiplier use]]~~ a function that causes the  
4   updated multiplier to converge to observed user behavior  
5   relevant to performance divided by predicted user behavior  
6   relevant to performance.

1 Claim 69 (currently amended): The apparatus of claim 64  
2 wherein the act of updating the multiplier uses ~~[[means for~~  
3 ~~updating the multiplier use]]~~ the formula:

4 
$$\text{updated\_multiplier} = \frac{N \bullet \text{initial multiplier} + \text{observed\_user\_behavior}}{N + \text{predicted\_user\_behavior}}$$

5 wherein N is a number.

1 Claim 70 (original): The apparatus of claim 69 wherein the  
2 user behavior is selection.

1 Claim 71 (original): The apparatus of claim 69 wherein the  
2 user behavior is conversion.

Claims 72-73 (canceled)

1 Claim 74 (currently amended): Apparatus comprising:  
2 a) an input for accepting search query information  
3 including a word;  
4 b) at least one processor; and  
5 c) at least one storage device storing machine  
6 executable instructions which, when executed by the at  
7 least one processor, perform a method including,  
8 1) ~~[[means for]]~~ determining one or more words  
9 related to the word included in the accepted  
10 search query, ~~[[+]]~~  
11 2) ~~[[e) means for]]~~ generating, automatically,  
12 an item request including  
13 i) the word included in the accepted search  
14 query, and  
15 ii) the one or more words determined to be  
16 related to the word included in the accepted  
17 search query, ~~[[+]]~~

18           3) ~~[[d) means for]]~~ retrieving items using the  
19           item request, ~~[[+]]~~  
20           4) ~~[[e) means for]]~~ determining a score for each  
21           of the retrieved items, wherein a score component  
22           is adjusted for any items retrieved on the basis  
23           of the one or more words determined to be related  
24           to the word included in the accepted search query  
25           relative to any items retrieved on the basis of  
26           the word included in the accepted search  
27           query, ~~[[+]]~~ and  
28           5) ~~[[f) means for]]~~ transmitting at least some  
29           of the retrieved items towards a client device  
30           for rendering to a user,  
31           wherein the retrieved items are  
32           advertisements and wherein the score component is at  
33           least one of ad performance information and ad price  
34           information.

1   Claim 75 (currently amended): The apparatus of claim 74  
2   wherein the score component is adjusted using a multiplier,  
3   the method ~~[[apparatus]]~~ further including ~~[[comprising+]]~~  
4       6) ~~[[g) means for]]~~ updating the multiplier using  
5       performance information.

Claim 76 (canceled)

1   Claim 77 (previously presented): The apparatus of claim 75  
2   wherein the performance information includes ad selection  
3   information.

1 Claim 78 (previously presented): The apparatus of claim 75  
2 wherein the performance information includes ad conversion  
3 information.

1 Claim 79 (currently amended): The apparatus of claim 75  
2 wherein the act of updating the multiplier uses ~~[[means for~~  
3 ~~updating the multiplier use]]~~ a function that causes the  
4 updated multiplier to converge to observed user behavior  
5 relevant to performance divided by predicted user behavior  
6 relevant to performance.

1 Claim 80 (currently amended): The apparatus of claim 75  
2 wherein the act of updating the multiplier uses ~~[[means for~~  
3 ~~updating the multiplier use]]~~ the formula:

4 
$$\text{updated\_multiplier} = \frac{N \bullet \text{initial multiplier} + \text{observed\_user\_behavior}}{N + \text{naively\_predicted\_user\_behavior}}$$

5 wherein N is a number.

1 Claim 81 (original): The apparatus of claim 80 wherein the  
2 user behavior is selection.

1 Claim 82 (original): The apparatus of claim 80 wherein the  
2 user behavior is conversion.

Claims 83-84 (canceled)

1 Claim 85 (previously presented): The method of claim 7  
2 wherein the act of retrieving ads using the ad request  
3 retrieves ads relevant to any one of the words of the  
4 generated ad request.

Claim 86 (canceled)